

PATENT COOPERATION TREATY

From the
INTERNATIONAL SEARCHING AUTHORITY

PCT

To:

see form PCT/ISA/220

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY (PCT Rule 43bis.1)

Date of mailing

(day/month/year) see form PCT/ISA/210 (second sheet)

Applicant's or agent's file reference
see form PCT/ISA/220

FOR FURTHER ACTION
See paragraph 2 below

International application No.
PCT/JP2005/002963

International filing date (day/month/year)
17.02.2005

Priority date (day/month/year)
02.03.2004

International Patent Classification (IPC) or both national classification and IPC
G07C9/00, H03K3/84, G06F7/58

Applicant
TSUYUZAKI, Noriyoshi

1. This opinion contains indications relating to the following items:

- ☒ Box No. I Basis of the opinion
- ☐ Box No. II Priority
- ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☐ Box No. VII Certain defects in the international application
- ☐ Box No. VIII Certain observations on the international application

2. **FURTHER ACTION**

If a demand for international preliminary examination is made, this opinion will usually be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA"). However, this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of three months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

Name and mailing address of the ISA:



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Box No. I Basis of the opinion

1. With regard to the **language**, this opinion has been established on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.
 - ☐ This opinion has been established on the basis of a translation from the original language into the following language , which is the language of a translation furnished for the purposes of international search (under Rules 12.3 and 23.1(b)).
2. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:
 - a. type of material:
 - ☐ a sequence listing
 - ☐ table(s) related to the sequence listing
 - b. format of material:
 - ☐ in written format
 - ☐ in computer readable form
 - c. time of filing/furnishing:
 - ☐ contained in the international application as filed.
 - ☐ filed together with the international application in computer readable form.
 - ☐ furnished subsequently to this Authority for the purposes of search.
3. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
4. Additional comments:

**WRITTEN OPINION OF THE
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Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Yes: Claims	
	No: Claims	1-4, 8-11 and 15-19
Inventive step (IS)	Yes: Claims	
	No: Claims	5-7 and 12-14
Industrial applicability (IA)	Yes: Claims	1-19
	No: Claims	

2. Citations and explanations

see separate sheet

**WRITTEN OPINION OF THE
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Re Item V.

- 1 Reference is made to the following document:

D1 : EP 0 957 220 A (SHI, YI) 17 November 1999 (1999-11-17)
D2: US-B1-6 697 829 (SHILTON MARK GOLDBER) 24 February 2004 (2004-02-24)
D3: EP-A-0 903 665 (KABUSHIKI KAISHA TOSHIBA) 24 March 1999 (1999-03-24)
D4: DE 42 13 988 A1 (HECHTENBERG, ROLF-RENE, 2900 OLDENBURG, DE) 4 November 1993 (1993-11-04)
D5: PATENT ABSTRACTS OF JAPAN vol. 1998, no. 10, 31 August 1998 (1998-08-31) - & JP 10 142340 A (TSUYUSAKI TOMOKO; TSUYUSAKI NORIHEI), 29 May 1998 (1998-05-29)
D6: PATENT ABSTRACTS OF JAPAN vol. 1997, no. 06, 30 June 1997 (1997-06-30) - & JP 09 028899 A (TSUYUSAKI NORIHEI; TSUYUSAKI TOMOKO), 4 February 1997 (1997-02-04)

2 INDEPENDENT CLAIM 1

- 2.1 The present application does not meet the criteria of Article 33(1) PCT, because the subject-matter of claim 1 is not new in the sense of Article 33(2) PCT.

Document D1 discloses (the references in parentheses applying to this document) an authentication apparatus comprising a body (lock body) and a partner side (key body) paired with the body, the apparatus comprising:

- a random pulse generator (IC3) arranged in the body which generates random pulses(see [0016] to [0019]),
- means (IC3) which outputs authentication data based on the random pulses generated by the random pulse generator,
- means (IC2 and IC4) which stores authentication data,
- communication means (see figure 1) which transmits/receives authentication data, and
- control means (IC1) which controls the communication of data and collates

authentication data (see [0009]).

Hence, D1 discloses all the features of claim 1 whose subject-matter therefore lacks novelty.

- 2.2 Even if the true random code generator of D1 was not to be regarded as a random pulse generator, a random pulse generator is an obvious alternative to generate true random code which the skilled person would use to achieve randomness as stated in D1 in paragraph [0015].

Therefore even if the applicant would doubt the lack of novelty of claim 1 in view of D1, the subject-matter of claim 1 would still lack inventive step (Article 33(3) PCT) in view of D1.

- 2.3 Since the subject-matter of claims 9 and 18 paraphrases the subject-matter of claim 1 in terms of authentication method and of authentication program, the same reasoning as given for claim 1 will apply mutatis mutandis.

Therefore claims 9, 18 also do not meet the requirements of the PCT in respect of novelty (Article 33(2) PCT).

3 DEPENDENT CLAIMS 2-8, 10-17, 19

- 3.1 D1 discloses all the features of dependent claims 2-4, 8, 10-11, 15-17 and 19 (see passages in the international search report). The subject-matter of those claims therefore is not novel (Article 33(2) PCT).
- 3.2 The features claims in dependent claims 5-7 and 12-14 are well-known technological possibilities used by random pulse generators (see for instance D3 to D6. Starting from D1 and using a random pulse generator, the skilled person would make select the claimed features according to the circumstances and without the exercise of inventive skills.

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